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MEMORANDUM  
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To: The Board of Oil, Gas, and Mining

From: James W. Smith *JWS*  
Reclamation Soils Specialist

Subject: White Mountain Gypsum Company  
White Mountain Gypsum Mine  
Millard County, Utah  
ACT/027/001

The Division staff has reviewed the Mining and Reclamation Plan submitted by White Mountain Gypsum Company for the White Mountain Gypsum Mine and feels that the plan meets the requirements of the Utah Mined Land Reclamation Act. The Division seeks the Board's concurrence to grant tentative approval and the Board's opinion of the form and amount of surety. An Executive Summary and Surety Estimate are attached for your review.

JWS/pf  
enc: Executive Summary and Surety Estimate

EXECUTIVE SUMMARY  
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White Mountain Gypsum Company

White Mountain Gypsum Mine  
ACT/027/001

Sections 10, 11, & 14, Township 22 South, Range 6 West  
Millard County, Utah

#### Location:

This mining operation is located in Millard County, approximately 9 miles southwest of Fillmore, in an area known as the Black Rock Desert. The area just north of the mining site is a point of geological interest, containing lava beds and volcanic craters. See attached map.

#### Soils and Geology:

The area is a nearly level old lake terrace composed primarily of very shallow Kanosh loams and Deseret silty clay loams. These soils are strongly saline and calcareous having high concentrations of gypsum. Slopes are 0 - 2%, the drainage is good to poor, and the water holding capacity is high to low. Erodibility is moderate to slight.

#### Hydrology:

Precipitation for this area averages around 10 inches per year. There are no perennial streams in the mining area, with only a few scattered ephemeral channels draining into the desert.

#### Ecology:

The area has a low natural fertility, supporting a sparse vegetative cover of greasewood, shadscale, rabbitbush, alkali sacaton, sand dropseed, Indian ricegrass, pickleweed, and other associated forbs. The principal use of the area is rangeland, which would be classified as being in generally poor condition.

#### Structures and Facilities:

There are presently no structures or facilities on-site and none are planned for the future, since the operation only involves scooping up the dunes of gypsum which have accumulated through wind deposition. The dunes are between 85 and 95 percent gypsum and are removed using a front-end loader and trucks during the dry summer season.

Mining and Reclamation:

During Operations:

1. Approximately 8 - 10 acres of gypsum dunes will be removed annually, over a 4 - 5 year period, during the summer months.
2. A front-end loader will be used to scoop up the dunes and trucks will be utilized to haul the material away on existing roads.
3. No surface facilities or structures will be constructed.
4. There will be no stockpiles and no waste will be generated.

After Operations:

1. The operator has committed to comply with all applicable Reclamation Standards adopted under the Utah Mined Land Reclamation Act.
2. The disturbed surfaces will be harrowed, broadcast seeded with a diverse seed mixture, and drag covered each fall, following the annual gypsum removal.

Impacts:

Removal of the gypsum dunes which have accumulated through wind deposition should have no significant impact on the environment, except for possibly an increase in the amount of dust particles normally in the air during the period of operation.

Surety Estimate:

The reclamation surety for this operation was estimated to be \$2,<sup>884</sup>629.00, which includes a 5% inflation factor for the estimated life of the operation of 5 years. It also includes removal of trash and debris, five annual inspections and an annual revegetation of ten acres of disturbed surface, including supervision. A copy of the surety estimate is attached.

Application History:

April 24, 1978	White Mountain Gypsum's submission of MR Forms 1 & 2 received by Division.
July 11, 1978	Division field inspection.
July 18, 1978	Division letter to White Mountain Gypsum requesting additional information.
July 21, 1978	Division received MR Form 8, commitment to Rule M-10

Application History, cont:

August 16, 1978

Mr. Ken Migchelbrink of Smith and Ardussi, Inc. (owners of White Mtn. Gypsum) visited Division to discuss operation.

September 25, 1978

Division received map.

October 24, 1978

Division letter to White Mtn. Gypsum requesting the balance of the information requested in July.

October 27, 1978

Mr. Joseph Sauve of White Mtn. Gypsum called to discuss latest Division letter.

November 20, 1978

Division received letter with additional information from Ken Migchelbrink of Smith and Ardussi, Inc.

June 19, 1979

Division completed plan review, surety estimate, and executive summary.

# DIVISION OF OIL, GAS, AND MINING

## BOND ESTIMATE

OPERATOR: White Mountain Gypsum  
 MINE NAME: White Mountain Gypsum  
 LOCATION: Secs. 10, 11, & 14; T. 22 S.; R. 6 W.  
 COUNTY: Millard  
 DATE: June 19, 1979

	Operation	Amount	Rate	Cost
A.	<b>CLEAN-UP</b>			
	1. Removal of structures & equipment.	N/A		
	2. Removal of trash & debris.	\$100.00	Lump sum	\$100.00
	3. Leveling of ancillary facilities pads and access roads.	N/A		
B.	<b>REGRADING &amp; RECONTOURING</b>			
	1. Earthwork including haulage and grading of spoils, waste and overburden.	N/A		
	2. Recontouring of highwalls and excavations.	N/A		
	3. Spreading of soil or surficial materials.	N/A		
C.	<b>STABILIZATION</b>			
	1. Soil preparation, scarification, fertilization, etc.	10 acres (annual disturbance)	\$25.00/acre	\$250.00
	2. Seeding or planting.	10 acres (annual disturbance)	\$150.00/acre	\$1500.00
	3. Construction of terraces, waterbars, etc.	N/A		
D.	<b>LABOR</b>			
	1. Supervision.	16 hours.	\$10.00/hour	\$160.00
	2. Labor exclusive of bulldozer time.	N/A		
E.	<b>SAFETY</b>			
	1. Erection of fences, portal coverings, etc.	N/A		
	2. Removal or neutralization of explosive or hazardous materials.	N/A		
F.	<b>MONITORING</b>			
	1. Continuing or periodic monitoring, sampling & testing deemed necessary.	5 annual inspections	\$50.00 ea.	\$250.00
G.	<b>OTHER</b>			
	5% Inflation factor for 5 year life of operation CAF = 1.2763		subtotal	\$2260.00
				\$624.00
			Total	\$2884.00

